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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,005	01/28/2002	Shuichi Karino	8013-1002	2094

466 7590 04/03/2007
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EXAMINER

ROSE, KERRI M

ART UNIT	PAPER NUMBER
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2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/056,005	KARINO ET AL.	
	Examiner	Art Unit	
	Kerri M. Rose	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22,26,27,31,32,35,37-43,45-51,53-57,59-71,73-79,81-85 and 87-92 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22,26,27,31,32,35,42,43,70 and 71 is/are allowed.
- 6) ☒ Claim(s) 37-41,45,47,48,50,51,53-55,59,61,62,64-69,73,75,76,78,79,81-83,87,89,90 and 92 is/are rejected.
- 7) ☒ Claim(s) 46,49,56,57,60,63,74,77,84,85,88 and 91 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 22, 27-32, 37-41, 50-55, and 64-92 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments, see page 27, filed 1/04/2007, with respect to the 112 rejection of claims 1, 3-8, 20-14, 27, 30, 31, and 65-91 have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 37-41, 45, 47, 48, 50-55, 59, 61, 62, 64-69, 73, 75, 76, 78-83, 87, 89, 90 and 92 are rejected under 35 U.S.C. 102(a) as being anticipated by admitted prior art (APA) in view of RFC 3031.
5. In regards to claim 37, APA discloses a communication network comprising: a host network (fig. 1 element 1); a plurality of base stations (fig. 1 BS1-BS8); at least a mobile host capable of establishing links to said base stations (fig. 1 MH); and a hierarchy-network of plural routers providing multiple-point routings between said base stations and said host network (fig. 1 R1-R7), wherein at least one of said routers becomes selectively performing as a multicast router for transferring a packet to not only a first base station which has currently been linked to said

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mobile host but also at least a second base station adjacent to said first base station, and said second base station has currently been unlinked to said mobile host (fig 1 step 3).

APA does not admit a label value that indicates a sequence in transmission of said packet.

Section 3.28 of RFC 3031 indicates that it is very important for messages to be transmitted in the proper sequence and to that end sequence numbers are attached to the packets such as in TCP.

It would have been obvious to one of ordinary skill in the art to modify the APA to include sequence numbers, as taught by RFC 3031, because ensuring proper order is important for proper functioning, as taught in section 3.28. Additionally, section 2.1 of RFC 3031 outlines additional benefits to using MPLS such as the ability to use explicit routes and utilize more packet information to classify packets into an FEC.

6. In regards to claim 38, APA discloses the communication network as claimed in claim 37, wherein said router selected as said multicast router is positioned at a branch point of both a currently designated communication route between said host network and said first base station and a currently undesigned adjacent communication route between said host network and said second base station (fig. 1 R5).

7. In regards to claim 39, APA discloses the communication network as claimed in claim 38, wherein said selection of said multicast router is made by a retrieval to said branch point based on a position recording message from said mobile host and a last-updated routing information stored on a routing table of each of said routers, wherein said routing information is updated based on said position recording message from said mobile host (figure 1 step 3 is a

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multicast message from R5 based on stored information. Step 7 is an update to the routing information).

8. In regards to claim 40, APA discloses the communication network as claimed in claim 39, wherein said retrieval to said branch point is made, every when said mobile host moves to an adjacent radio area to said last-existed radio area, based on a new position recording message from said mobile host and a newly-updated routing information (figure 1 steps 1-7).

9. In regards to claim 41, APA discloses the communication network as claimed in claim 37, wherein said router selected as said multicast router has a lowest level in said hierarchy-network of plural routers and is positioned on a currently designated communication route between said host network and said first base station (fig. 1 R5).

10. In regards to claim 45, APA discloses a router capable of queuing packets since all routers have a queue.

11. In regards to claim 47, RFC 3031 discloses using TCP for its sequence and flow control mechanisms in section 3.28. Therefore RFC 3031 teaches comparing a newly received label to a previously received label and discarding the new packet if the labels are the same. TCP sequence numbers are compared and a duplicate packet is discarded.

12. In regards to claim 48, APA discloses a base station with a queue since all base stations use queues.

13. In regards to claim 50, APA discloses the communication network as claimed in claim 37, wherein said multicast router is a bicast router (fig. 1 R5 bicast to BS3 and BS4).

14. Claims 51-55, 59, 61, 62, 64; 65-69, 73, 75, 76 78; 79-83, 87, 89, 90, and 92 are rejected upon the same grounds as claims 37-41, 45, 47, 48, and 50.

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Allowable Subject Matter

15. Claims 22, 26, 27, 31, 32, 35, 42, 43, 70, and 71 are allowed.
16. Claims 46, 49, 56, 57, 60, 63, 74, 77, 84, 88, and 91 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri M. Rose whose telephone number is (571) 272-0542. The examiner can normally be reached on Monday through Thursday, 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H. To can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

kmr



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